



Funding Update

• City Council:

- Approved (on Apr 24) amendment budget for Potomac
 Yard Metrorail Station Environmental Impact Statement
- Received a budget memorandum on April 24 related to costs associated with reactivating the IN-STEP/Complete Streets program.

• Commonwealth Transportation Board:

 Released the Draft 6-Year Improvement Program (2013-18); The City is preparing a response letter.

• TPB:

 Steering Committee approved project to do preliminary engineering for NB auxiliary lane on I-395 between Duke Street and Seminary Road.

Funding Update

• WMATA:

Board approved proposal to raise transit fares in FY2013.
 Other portions of budget to be considered in May 2012.

• NVTC:

- Endorsed the designation of how the local match for Route 7
 Transit Study would be provided.
- Heard review of Legislative Session (in Richmond) in which the Governor has proposed that local land use plans must be in conformance with VDOT plans.

• NVTA:

 No meeting held. A public open house was conducted for the TransAction 2040 plan on April 18.

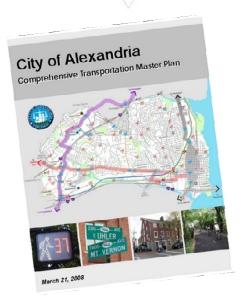
THANK YOU

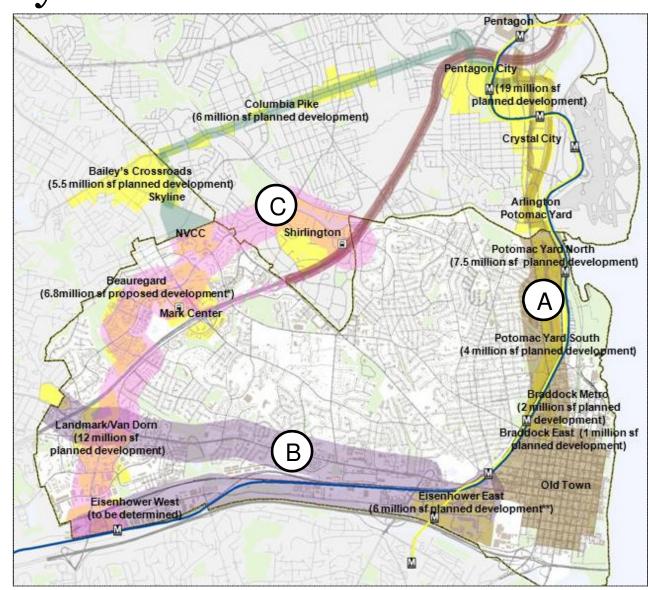
COMMENTS / QUESTIONS?



City Transit Initiative







High Capacity Transit Corridor Work Group

To provide citizen inputs to such issues as include route alignments, cross-sections, methods of operation, types of vehicles which should be used in these corridors at specific times, land use considerations, ridership, and financial implications.

- City Council 2 representatives
- Planning Commission
- Transportation Commission
- Budget & Fiscal Affairs Advisory Committee
- Chamber of Commerce
- Federation of Civic Associations –
 2 representatives
- Resident with Transit Planning Expertise

High Capacity Transit Characteristics

BRT Characteristics







Streetcar Characteristics







Station Characteristics







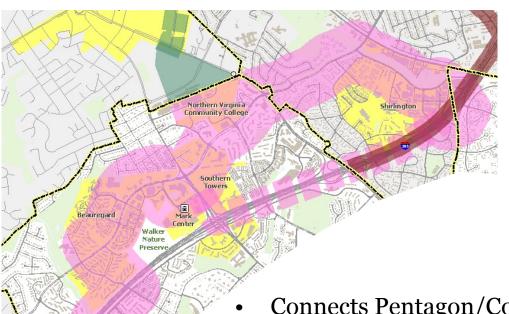
Secondary Evaluation Criteria - Effectiveness

Criteria Sub-Group	Evaluation Criteria	Measurement Method
Coverage	Service to Population, Employment, and Other Destinations	Tabulate population, employment, key destinations, and similar, served by option
	Transit Connectivity	Access to other transit services (existing and planned)
Operations	Running-way Configuration(s)	Quantify amount of runningway that is dedicated and amount that is mixed flow
	Corridor Length	Measured length of the corridor (mi or feet)
	Capacity	Potential corridor capacity (hourly) based on mode technology, headways, and other conditions
	Interoperability	Identification of whether the chosen runningway configuration and transit mode technology are compatible with regionally planned systems
	Avoidance of Congestion	Number and locations of LOS E/F intersections avoided
	Transit Travel Time	Transit travel time
	Intersection Priority	Percent of intersections where TSP is needed and can be implemented successfully - notation of where it cannot be implemented successfully
	Ridership	Forecast number of riders
Alignment	Geometrics	Geometric quality of alignment
	Runningway Status	Percent of corridor to be located on new or realigned roadway
Phasing	Phasing	Identification of ability to phase operations and implementation

Secondary Evaluation Criteria - Impacts

Criteria Sub-Group	Evaluation Criteria	Measurement Method
Economic	Development Incentive	Perceived value of transit mode technologies with regard to development potential
Natural	Natural Environment	Summary of key environmental conditions affected (wetlands, floodplains, T&E, streams, and similar)
Environmental	Parks and Open Space	Summary of parks and/or open spaces affected
	Property	Number, use type, and quantity of properties impacted with anticipated level of impact (ROW only, partial take, total take)
	Streetscapes	Impact to existing streetscapes
Neighborhood and Community	Community Resources	Identify number and location of historical, cultural, community, archaeological resources affected
	Demographics	Identification of impacts to special populations
	Noise and Vibration	Summarize relative noise and vibration impacts of different mode types and corridor configurations
	Traffic Flow Impact	Effect of transit implementation on vehicular capacity of corridor
Transportation	Traffic Signals	Number of existing signalized intersections affected by transit, identification of need for new signal phases, and number/location of new traffic signals needed to accommodate transit
	Multimodal Accommodation	Impacts to, and ability to accommodate bicycles and pedestrians
	Parking	Impacts to parking

Corridor C – Van Dorn/Beauregard







- Connects Pentagon/Columbia Pike to western Alexandria
- Major destinations
 - Pentagon
 - Shirlington
 - Mark Center
 - NOVA Community College
 - Landmark Mall/Van Dorn
 - Van Dorn Metro



Corridor C – Van Dorn/Beauregard

CWG Recommendation - May 19, 2011

The following motion was passed by the High Capacity Transit Corridor Work Group at its May 19, 2011 meeting, regarding transit in Corridor C:

"Alternative D is the preferred alternative for phased implementation of transit in dedicated lanes in Corridor C until such time as Alternative G becomes feasible and can be implemented. This course of action is consistent with the Council's recent decision to provide dedicated lane transit along the segment of Corridor A that is north of Braddock Road. Evaluation and analysis will continue of Alternative D in preparation for future implementation of Alternative G. Construction of transit in Corridor C shall be the first priority of Alexandria's transportation projects. Each subsequent corridor shall be evaluated separately regarding the need to acquire additional right-of-way for dedicated lanes as discussed in the Transportation Master Plan."

Corridor C – Van Dorn/Beauregard

City Council – September 17, 2011

The following motion was passed by the Council on September 17, 2011, regarding transit in Corridor C:

The City Council endorses the recommendation of the transit Corridors Work Group, and also directs that staff should work with Northern Virginia Community College to improve service to the Alexandria campus of the college with this service.

Corridor C – Van Dorn/Beauregard Recommendation

Alternative D Bus Rapid Transit in Dedicated Lanes from Van Dorn Metro to Pentagon

Planning-Level Cost Estimate

• Capital: \$48 million

• Fleet (25-year): \$20 million

ROW: \$33 million

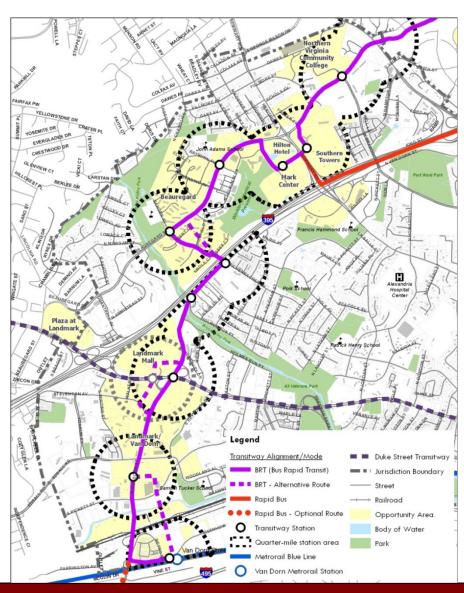
• Operating (25-year): \$60 million

Physical Characteristics

- Low-floor BRT vehicles
- Dedicated lanes (~80% to 90% of corridor)
- Off-board fare collection
- Service specific branding and identity
- Substantial transit stations

Operational Characteristics

- Transit signal priority at intersections
- Real-time service information
- 7.5-minute peak period headways
- 15-minute off-peak headways
- 18 hours of service (Monday through Saturday)
- 12 hours of service on Sunday
- 2035 Weekday Ridership estimate of 12,500 to 17,500 riders per day



Corridor A – Route 1/North-South



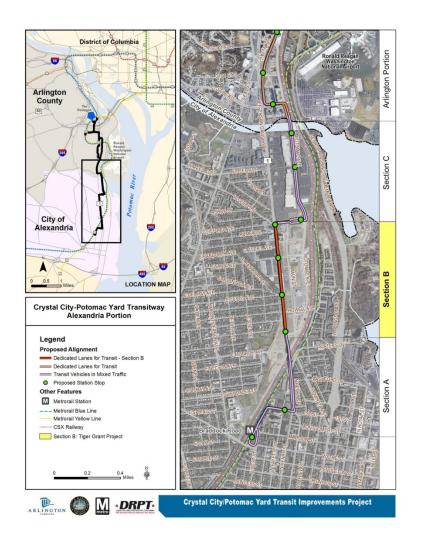
- Connects to Arlington and Fairfax County
- Major destinations
 - Old Town
 - Potomac Yard
 - Pentagon
 - Crystal City
 - King Street and Braddock Road Metro







Corridor A – North of Braddock Metro



Arlington County City of Alexandria LOCATION MAP Crystal City-Potomac Yard Transitway **Alexandria Portion** Legend Proposed Alignment Dedicated Lanes for Transit - Section B Dedicated Lanes for Transit Other Features M Metrorail Station --- Metrorail Blue Line Section B: Tiger Grant Project Crystal City/Potomac Yard Transit Improvements Project

Current CCPY Alignment

Ultimate CCPY Alignment

Transitway A-CCPY Implementation (North of Braddock Metro)

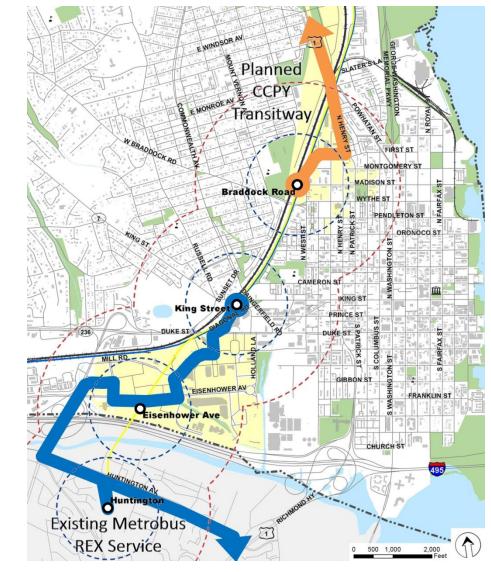
- Funding has been assembled to build the CCPY
 - Sources
 - FTA Section 5309 Funds
 - FTA Exempt New Start Funds
 - Federal DOT TIGER Funds
 - CMAQ Funds
 - RSTP Funds
 - City of Alexandria Funds
 - Private Funding
- Implementation
 - The City is using a design-build method to build the transitway itself-This contract was signed in November, 2011.
 - The City will use a conventional design-bid-build process to build the transitway station- This will begin in early 2012.
 - Service in Alexandria is scheduled to start by the end of 2013.

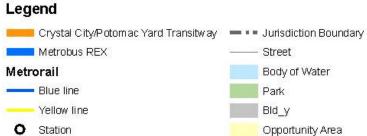
Summary of Corridor A Transportation Challenges

- Significant travel demand (local and regional) in the north-south direction in east Alexandria
- Significant peak period congestion on US 1 (Patrick and Henry Streets) and Washington Street
- Narrow rights-of-way compared to functional needs of streets
- Narrow travel lanes
- Narrow sidewalks
- Streetscapes
- Noise, vibration and Air quality impacts
- Compatibility with Land Use and Historic Character
- On-street parking
- Limited enforcement of HOV lanes
- Location of Metrorail stations

Concept 1: No Build

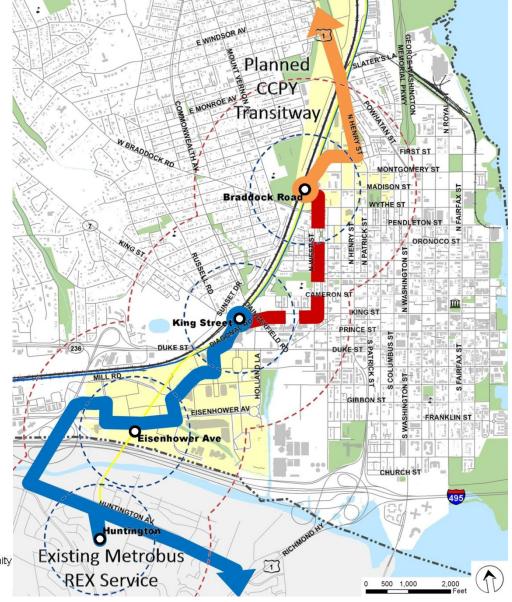
- Currently planned CCPY transitway
- Existing REX Service





Concept 2: West Street

- Currently planned CCPY transitway
- Existing REX Service
- New service along West Street
 - Extension of CCPY,
 - Extension of REX
 - New service

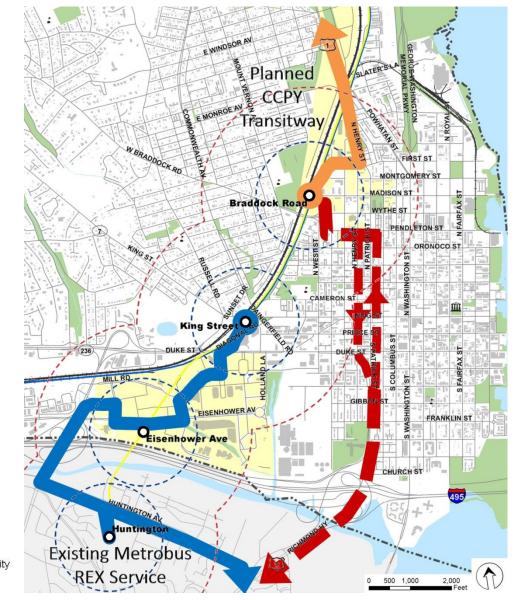


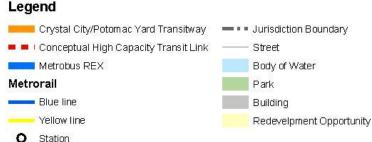


O Station

Concept 3: Patrick & Henry Streets

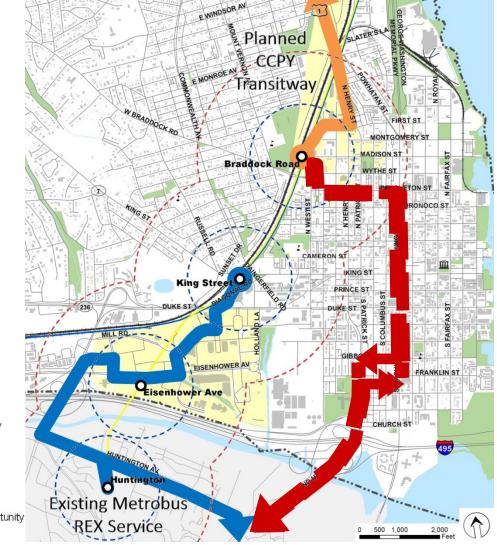
- Currently planned CCPY transitway
- Existing REX Service
- New service along West Street
 - Extension of CCPY,
 - Spur of REX
 - New service

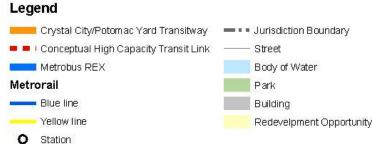




Concept 4: Washington Street

- Currently planned CCPY transitway
- Existing REX Service
- New service along West Street
 - Extension of CCPY,
 - Spur of REX
 - New service

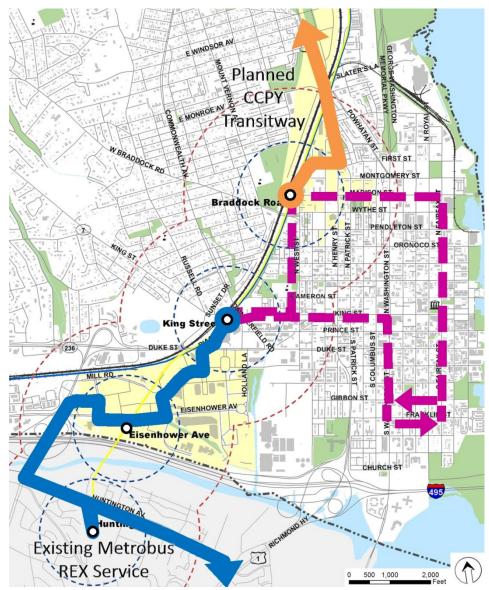




Concept 5: Circulator

- Currently planned CCPY transitway
- Existing REX Service
- Conceptual circulator route





Corridor A - Recommended Strategy

- Complete the adopted CCPY transitway project from Braddock Road Metrorail station to Arlington County
- Extend hours of operation and coverage of the King Street Trolley
- Use DASH Comprehensive Operations Analysis (COA) to develop a circulator concept for Corridor A in conjunction with the comprehensive review of all transit services within Old Town

CWG Recommendation – December 15, 2011

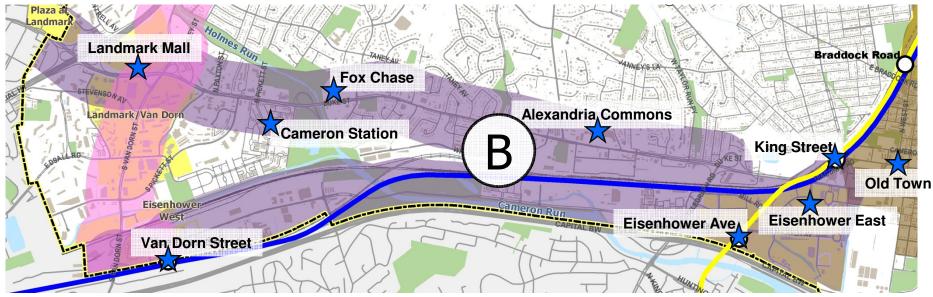
The following motion was passed by the High Capacity Transit Corridor Work Group at its December 15, 2011 meeting, regarding transit in Corridor A:

"Whereas the Alexandria Comprehensive Transportation Master Plan conceptually envisioned the eventual location of high capacity transit in dedicated lanes in the portion of Corridor A south of Braddock METRO Station; and

Whereas the High Capacity Transit Corridor Work Group was appointed to recommend methods for implementing the Alexandria Comprehensive Transportation Master Plan to City Council;

Be it hereby resolved that the High Capacity Transit Corridor Work Group recommends that there be no dedicated-lane high capacity transit on the portion of Corridor A south of Braddock METRO Station. Instead, the High Capacity Transit Corridor Work Group recommends that resources be used to explore the possibility of putting circulator buses/trolleys or other forms of conventional and scale appropriate transit in this portion of the City."

Corridor B: Duke/Eisenhower



- Major destinations
 - Eisenhower East
 - Landmark Mall Area
 - Cameron Station
 - Fox Chase
 - Alexandria Commons
 - Old Town
 - Van Dorn Metro
 - King Street Metro
 - Eisenhower Avenue Metro







Summary of Corridor B Transportation Challenges

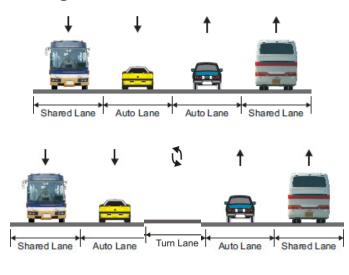
- Transit needed to support future growth
- · Coordinate with future development including Landmark Mall
- Congestion in the area between Quaker Lane and Telegraph Road, and need to maintain capacity
- Constrained areas with only 4 lanes (Jordan to Roth Street)
- Service roads valued by the community
- Streetscape Impacts along Duke Street
- Pedestrian safety, especially across Duke Street, such as at Taylor Run Parkway
- Lack of east-west bicycle facilities along or near Duke Street
- Improved multi-modal connectivity to Eisenhower Avenue
- Need for a multi-phased approach to implementing the transitway
- Need dedicated lanes for system effectiveness

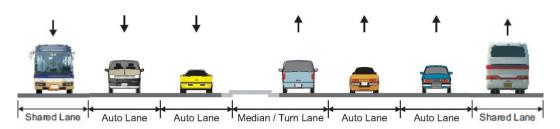
Existing Conditions

Jordan Street to Wheeler Avenue

Wheeler Avenue to Roth Street

Landmark Mall to Jordan Street & Roth Street to King Street Metro

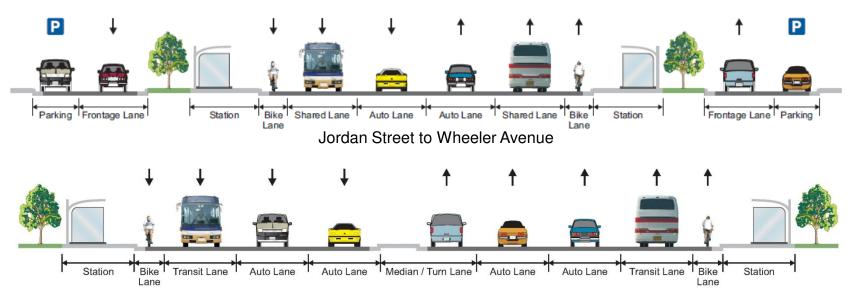




Description

- 4.5 miles total: 4-lane segments [2 miles]; 6-lane segments [2.5 miles]
- DASH and WMATA bus service running along curb
- Right-of-way width varies greatly and is not centered around mainline
- Service roads between Jordan Street and Wheeler Avenue provide residential driveway access

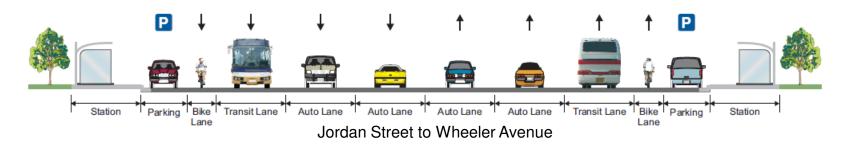
Alternative 1 — Use Existing Lanes for Transit

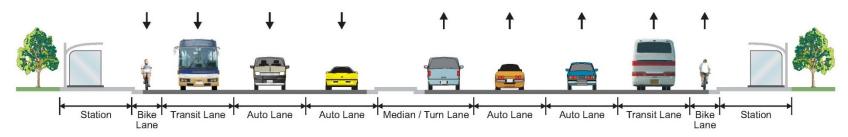


Landmark Mall to Jordan Street / Roth Street to King Street Metro

Advantages	Disadvantages
Pewest negative impacts (including property) Maintains service roads Lowest capital cost Easy to phase	Worst transit operation due to shared lanes Highest operating cost Highest fleet cost May be impacted by congestion on Duke Street Longest transit travel time Lowest ridership potential

Alternative 2 – Uses Service Road Right-of-Way

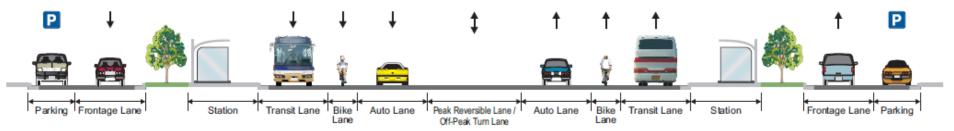




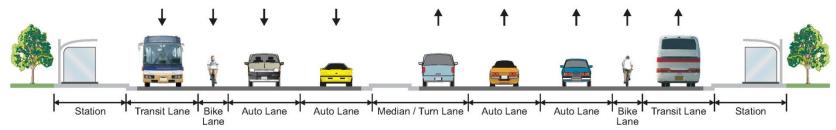
Landmark Mall to Jordan Street / Roth Street to King Street Metro

Advantages	Disadvantages
Minimal impact to traffic flow High-quality transit operation Moderate capital, fleet, and operating cost Some avoidance of congestion for transit	Curvilinear alignment On-street parking could disrupt transit operations Impacts service roads and streetscape as a result

Alternative 3 - Reversible Lane



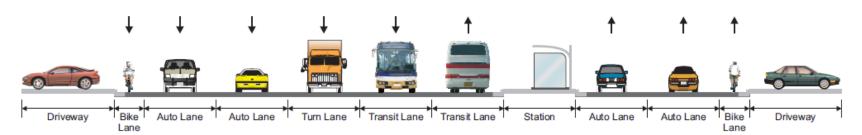
Jordan Street to Wheeler Avenue



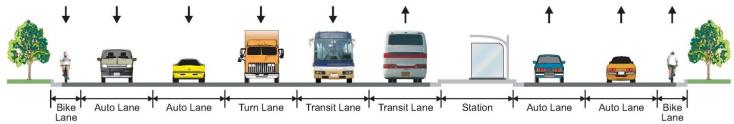
Landmark Mall to Jordan Street / Roth Street to King Street Metro

	Advantages	Disadvantages
Reversible Lane	High-quality transit operation Maintains most service roads Moderate capital, operating, and fleet cost Provides turn lanes at some new locations to help traffic flow	Off-peak direction traffic impact OR off-peak direction transit impact Property impacts Requires overhead gantries to control reversible condition May be confusing to drivers
Reversible Lane Variation	Maintains most service roads Less property impact than Alternative 3 Provides peak direction, peak period transit lane Lower capital cost than Alternative 3	No dedicated lanes off-peak time and direction Property impacts Requires overhead gantries to control reversible condition Could be very confusing to drivers due to changing lane use condition

Alternative 4 - Median Running



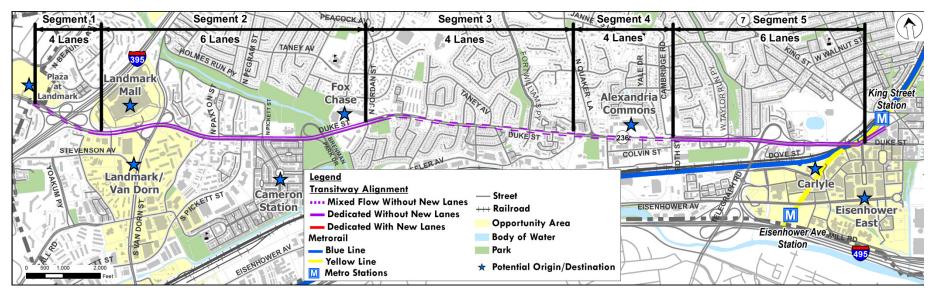
Jordan Street to Wheeler Avenue



Landmark Mall to Jordan Street / Roth Street to King Street Metro

Advantages	Disadvantages
Best transit operation by eliminating conflicts with driveways and traffic Lowest fleet and operating cost Avoids impacts from traffic congestion Highest ridership potential	Largest property impact Eliminates service roads and parking (in front of 28 homes) Highest capital cost Highest right-of-way cost and impacts

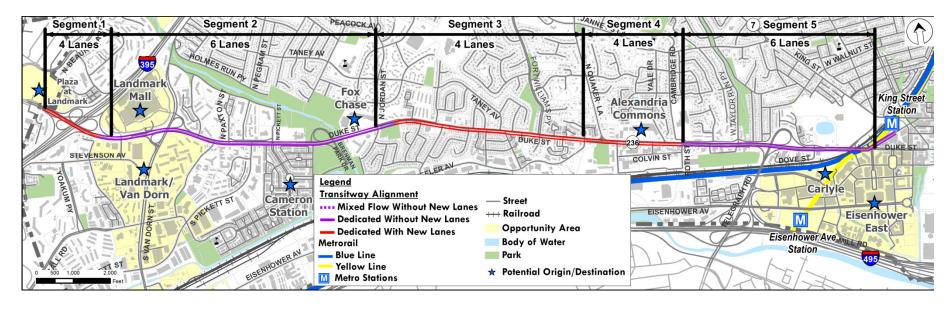
Alternative 1: Curb Running in Mixed Flow and Dedicated Lanes



Description

- Alternative 1a Without Bike Lanes
- Alternative 1b With Bike Lanes
- Transit in mixed flow on 4-lane segments (2 miles total) and in dedicated lanes on 6-lane segments (2.5 miles total) to reduce property impacts
- Transit running along curb
- Uses queue jumps where there are not dedicated lanes and TSP
- Some impacts to property and frontage roads to accommodate queue jumps

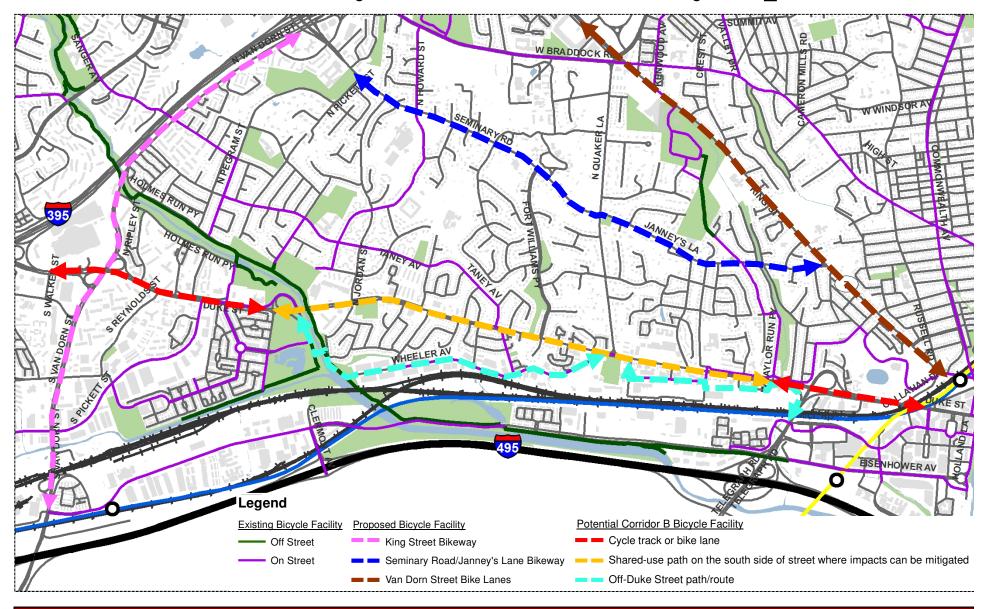
Alternative 3: Curb Running in Dedicated Lanes with Reversible Lane



Description

- Alternative 3a Without Bike Lanes
- Alternative 3b With Bike Lanes
- Transit running along curb
- Transit in dedicated lanes for segments with 6 lanes
- Reversible lane (Jordan to Wheeler) for general purpose traffic (Peak flow)
- Transit in dedicated lanes in other areas based on peak flow
- Requires widening in 4-lane segments (2 miles total)
- Impacts to property and frontage roads

Potential Bicycle Connectivity Options





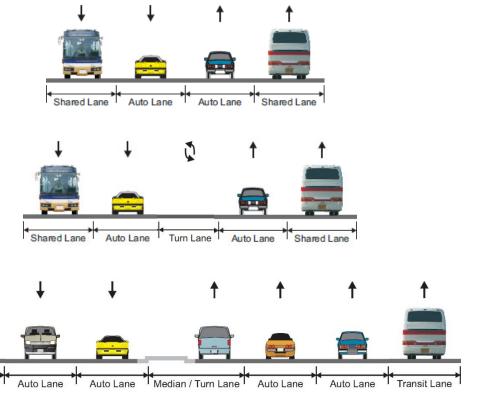
Duke Street Station near Sweeley Street (Alexandria Commons)

Alternative 1a

Gordon Street to Wheeler Avenue

S. Quaker Lane to Roth Street

Landmark Mall to Jordan Street, Roth Street to Taylor Run Parkway, & Callahan Drive to King Street Metro



Description

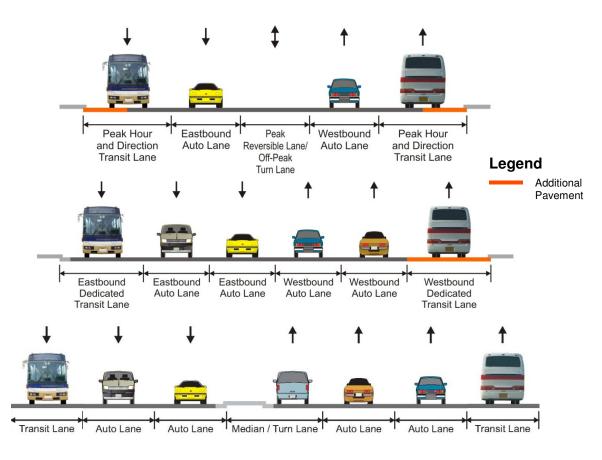
- Transit in mixed flow on existing 4-lane segments and in dedicated lanes on existing 6-lane segments
- Transitway uses queue jumps to avoid congestion and reduce disruption to Duke Street traffic
- Adds a WB lane between Jordan Street and Gordon Street, converting service road from two-way to one-way
- Adds a WB lane between Wheeler Ave and S. Quaker Lane
- Realigns EB on-ramp at Telegraph Road and access to adjacent property
- Off-corridor bicycle accommodation
- Pedestrian improvements at station locations

Alternative 3c

Jordan Street to Wheeler Avenue

S. Quaker Lane to Roth Street (Alexandria Commons Area)

Landmark Mall to Jordan Street, Wheeler Avenue to S. Quaker Lane & Roth Street to King Street Metro



Description

- Travelway identical to Alternative 1A between Landmark Mall and Jordan Street, Roth Street and Taylor Run Parkway, Callahan Drive and King Street Metro
- Travelway widened to approximately 61 feet between Jordan Street and Wheeler Avenue (same width as existing section between Wheeler Avenue and Roth Street)
- Travelway widened to 72 feet between S. Quaker Lane and Roth Street (adds lane to accommodate heavy traffic flow from Quaker Lane to Telegraph Road)
- No left-turn lane during peak periods between Jordan Street and Wheeler Avenue
- Off- and on-corridor bicycle accommodation
- Pedestrian improvements corridor-wide

Alternative 3c - Planning-Level Impacts and Costs

Potential Impacts		
Park Impact (Total) Ewald Ben Brenman Schuyler Hamilton Jones	0.20 acres .095 .05 .02	
Property Impact	2.0 acres 89 parcels	
Commercial Parking Impact	75 spaces	
Residential Parking Impact	6 spaces	

<u>Property Impact Note:</u> All properties and parking spaces impacted were quantified regardless of whether a large of small area was affected.

Planning-Level Cost Estimates		
Capital Cost Estimate ¹ (exclusive of vehicles, based on cost per-mile within the City)	\$39 M	
25-year Fleet Cost Estimate ²	\$16 M	
Right-of-Way Cost Estimate	\$4 M	
25-year Operating Cost	\$60 M	
Planning-Level Cost Estimate ¹	\$119 M	

<u>Cost Estimate Note:</u> Planning level cost estimates are shown in year 2012 dollars and do not include additional contingency or escalation to a future year mid-point of construction. Totals listed do not include costs for major utility relocations/new service, or the capital costs for roadway/streetscape improvements that may be implemented concurrently, but are not required for the transit project.

CWG Recommendation – March 15, 2012

The following motion was passed by the High Capacity Transit Corridor Work Group at its March 15, 2012 meeting, regarding transit in Corridor A:

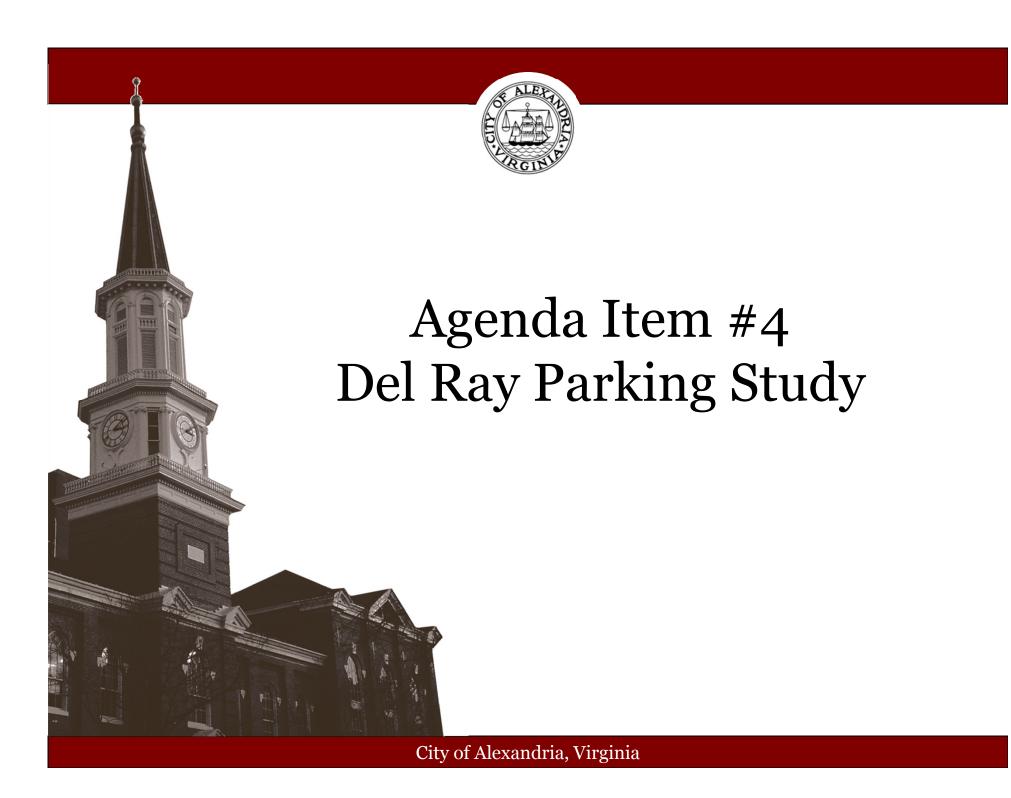
"The combination of Duke Street Alternatives 1a and 3c, are the preferred approach for phased implementation of a dedicated transitway in Corridor B. Alternative 1a would be the first phase of transitway implementation on Duke Street. It would create dedicated transit lanes in existing six-lane sections of Duke Street between Landmark Mall and Jordan Street and between Roth Street and Diagonal Road. In the remaining section of Duke Street between Jordan Street and Roth Street, transit would operate in mixed flow. A parallel off-corridor bicycle facility should be examined to accommodate bicyclists along Duke Street and improved pedestrian facilities would be provided at intersections and near transit stations. Preliminary implementation should prioritize enhanced pedestrian safety and improvements at Taylor Run Parkway."

CWG Recommendation – March 15, 2012 (Cont.)

"Alternative 3c would be the subsequent phase of transitway implementation on Duke Street. It would build on Alternative 1a by widening Duke Street to provide a reversible lane between Jordan Street and Roth Street. The reversible lane would be configured to allow Duke Street to accommodate a dedicated transit lane in the peak hour and peak direction of traffic flow during the a.m. and p.m. peak periods along Duke Street. Alternative 3c should continue to examine a bicycle facility along Duke Street along with corridor-wide pedestrian improvements. However, the Work Group believes that bicycles should be accommodated in this corridor if studies demonstrate that the streetscape can still be enhanced"

THANK YOU

COMMENTS / QUESTIONS?



Purpose of Study

- Survey the existing parking inventory and utilization
- Comparison to previous parking studies
- Develop recommendations to improve parking operations

Study Area





Community Input

- Remove Parking Requirements in the Zoning Ordinance
- Better Parking Enforcement
- Wayfinding & Signage/ Advertisement
- Parking Management
- Shared Parking
- Paid Parking

Preliminary Findings: Parking Utilization and Turnover

- Inventory: 1099 On-street and 810 Off-street spaces
 - Only 2% of the supply of off-street parking is public
- Parking Occupancy peaks at 64% for on-street and 54% for off-street spaces
 - There are some certain times of the day that some blocks approach capacity.
- Parking turnover: Average length of stay was below two hours

Immediate Recommendations

- Add 2-hour time limit along the northwest corner of Mt Vernon Ave. and Windsor Ave.
- Implement 2 additional loading zones to support local businesses. *
- Create short term parking to generate high parking turnover.
- Consider creating Residential Parking Districts when parking utilization approaches 85%
- Remove some taxi stands to add general parking *
- Consistent enforcement of two-hour time limit

^{*} Underway/Completed

General Recommendations

- Additional public parking capacity through shared parking
- Remove parking requirements for small businesses
- Implement a wayfinding program to direct parkers to available parking spaces.
- Do not implement paid parking until the 85% utilization threshold is reached

Next Steps

- City Council, May 22,2012
- Create City Manager-appointed Stakeholder Work Group with staff
- Implementation of recommended strategies

THANK YOU

COMMENTS / QUESTIONS?



Background

- Council Strategic Plan:
 - Goal 1: Alexandria has quality development and redevelopment, support for local businesses and a strong, diverse and growing local economy
 - Goal 3: A multimodal transportation network that supports sustainable land use and provides internal mobility and regional connectivity for Alexandrians
- Transportation Master Plan
- BRAC-133 Citizen Advisory Group
- Direction from Council (Letter from Councilmen Smedberg and Krupicka)

What we Heard from the Community

- Vehicular traffic concerns
- Plan for a Multi-modal Transportation System
- Ensure transportation investments are built prior to development
- Protect Neighborhoods

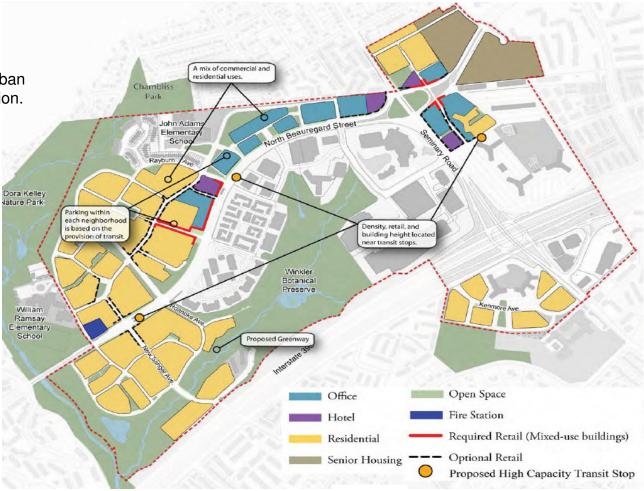
Transportation and Land Use

Beauregard Small Area Plan:

- Proposed mixed use community (residential, office, hotel, senior housing, retail and Town Center). New proposed Fire Station.
- Land use connections to existing and proposed transit station locations.

City of Alexandria Transportation Master Plan:

 Enhance quality of life, livable, urban land use and neighborhood preservation.



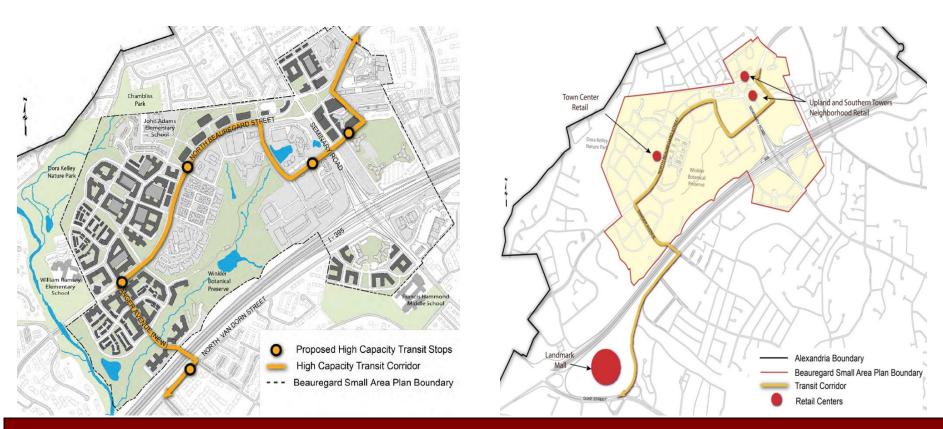
Transportation and Land Use

City of Alexandria Transportation Master Plan:

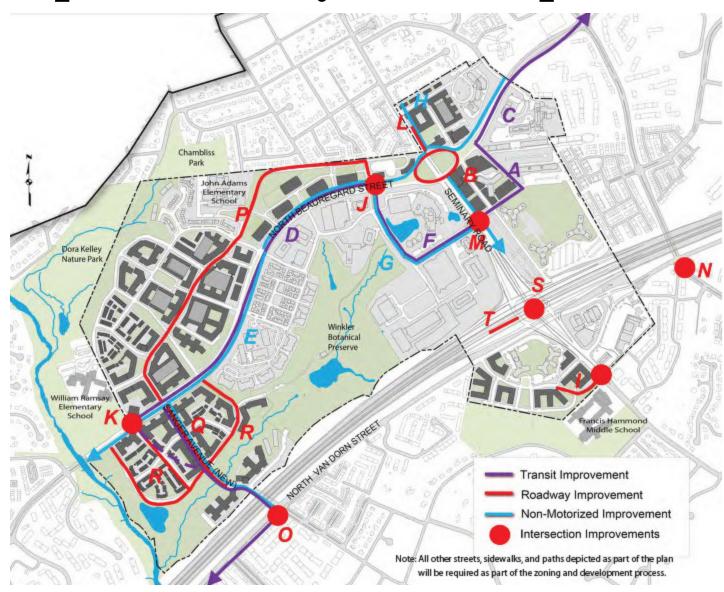
Develop innovative local and regional transportation options.

Beauregard Small Area Plan:

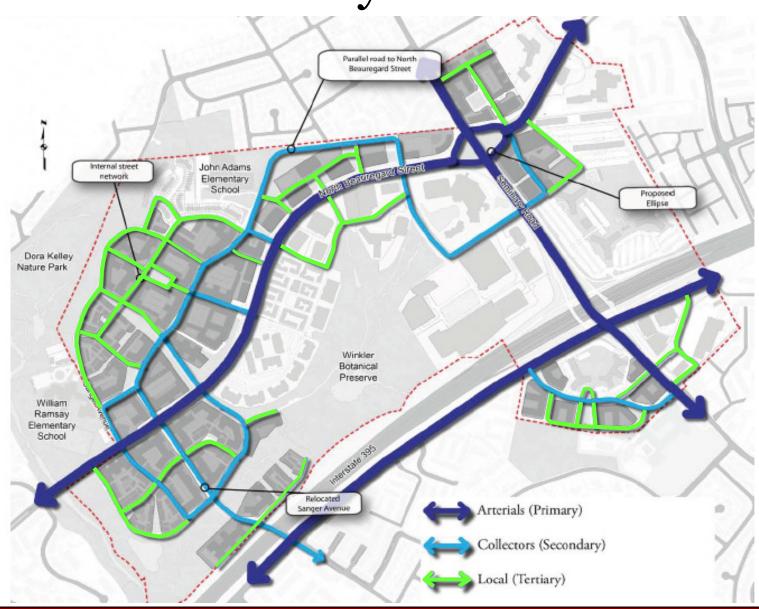
- Includes High Capacity Transitway Corridor C route through Beauregard Neighborhood. Proposed transit stations located near retail areas to create local and regional destination areas. Seeks to connect south to future Corridor B and points north into Arlington County.
- New street grid network for additional automobile travel options.



Transportation System Improvements



Roadway Network



Street adjacent Dora Kelley Nature Park



Transit Network





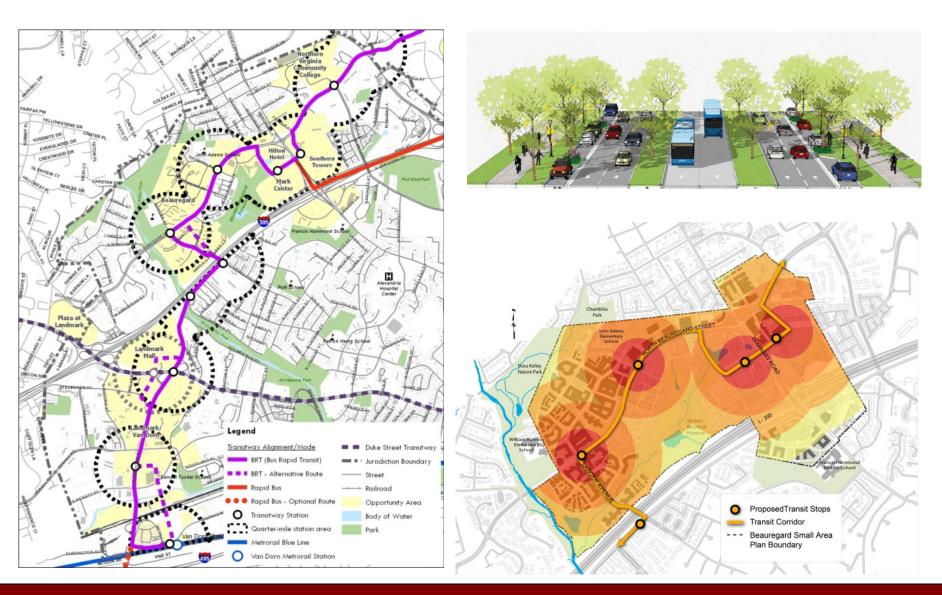
Existing (Southern Towers)



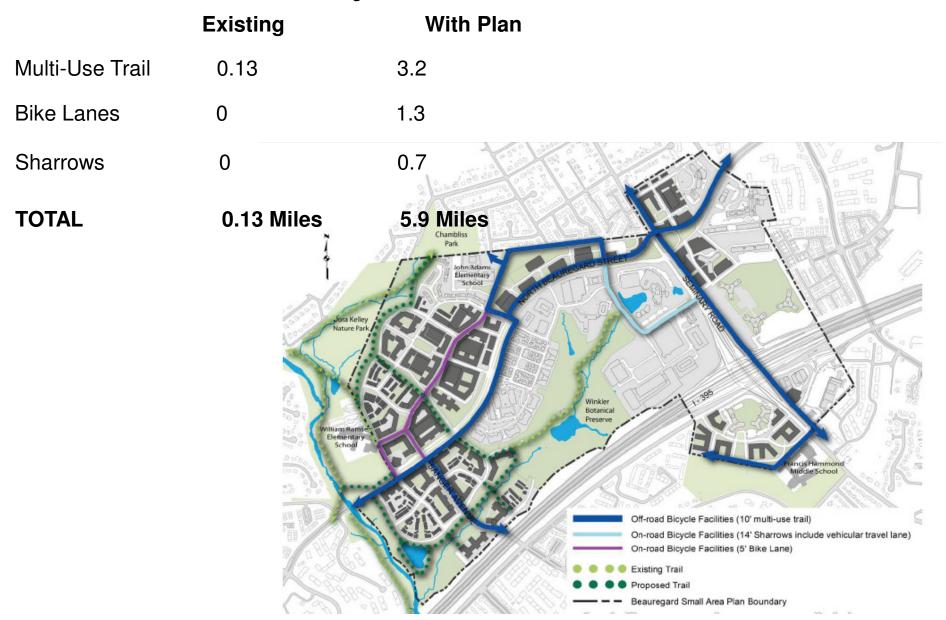


Proposed (Transitway Corridor C)

Transit Network



Bicycle Network

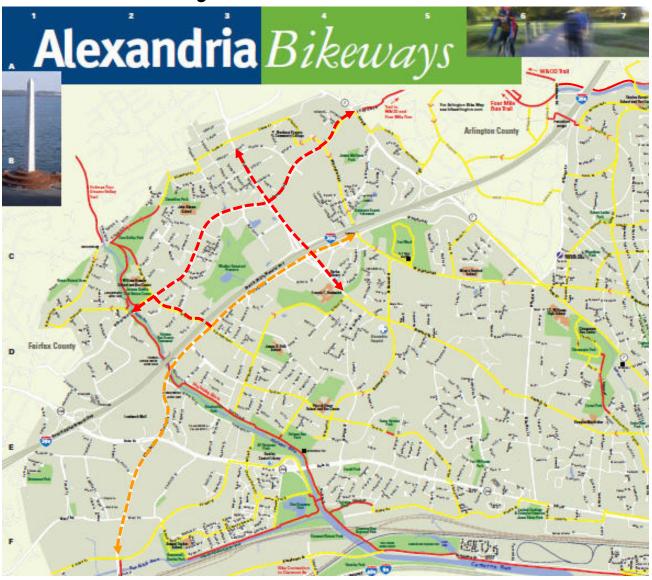


Regional Bicycle Connections

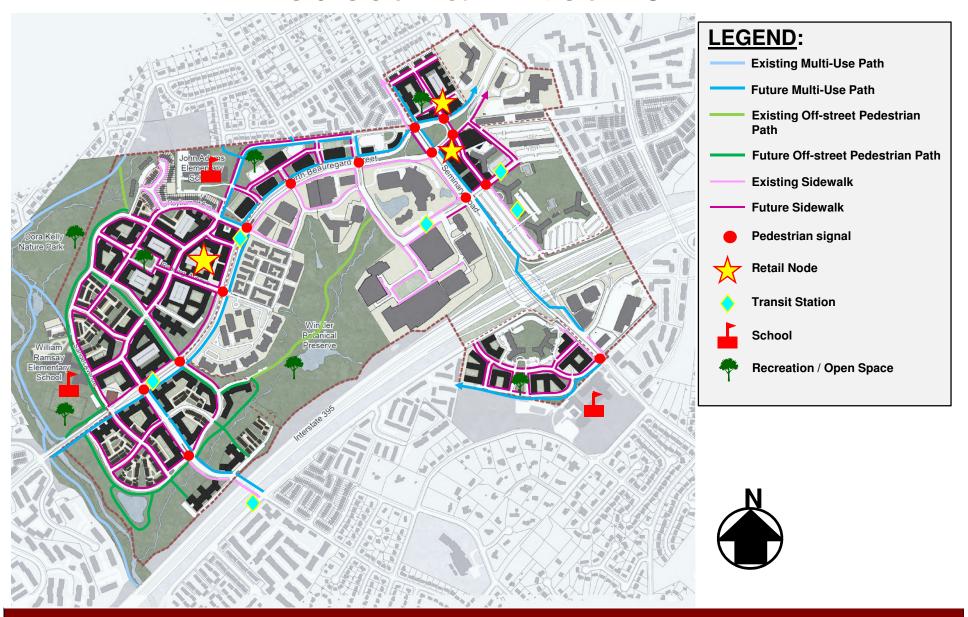
LEGEND: Existing Off-Street Trail Existing On-Street Bikeway Proposed Off-



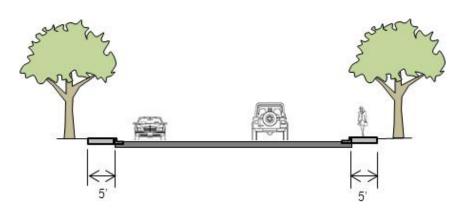
Street Trail



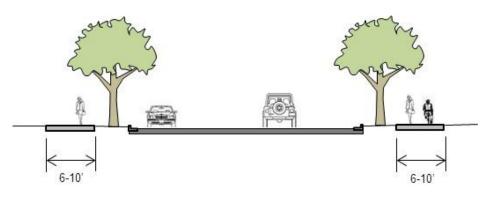
Pedestrian Network



Pedestrian Network



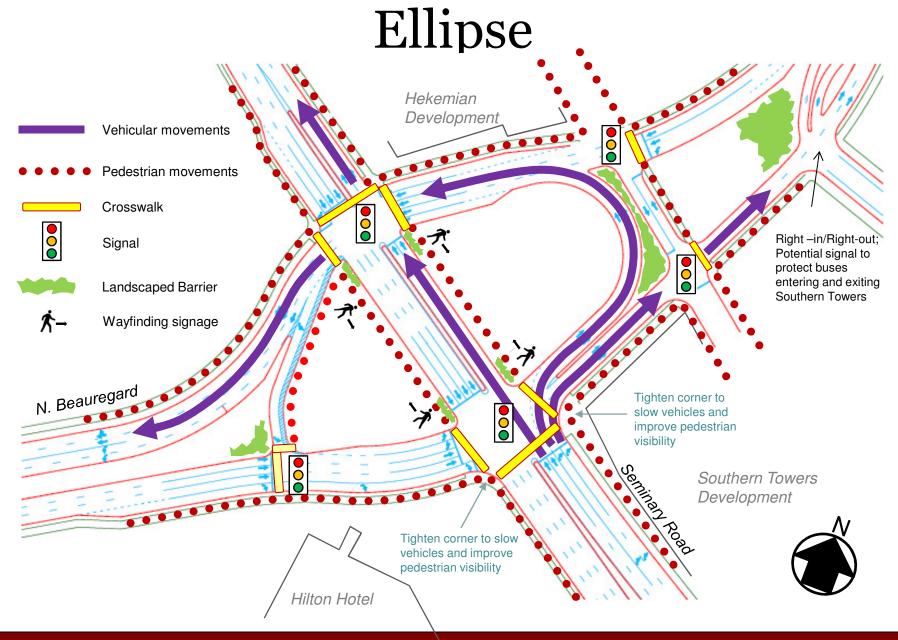
Existing Conditions



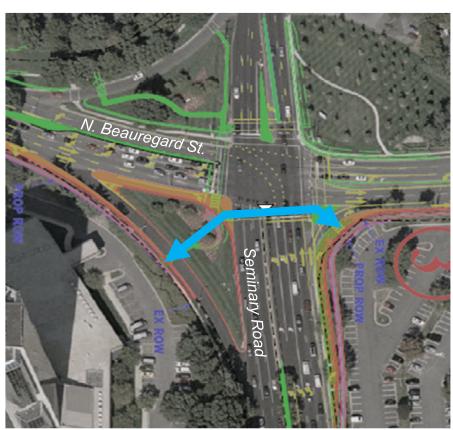
Future Conditions



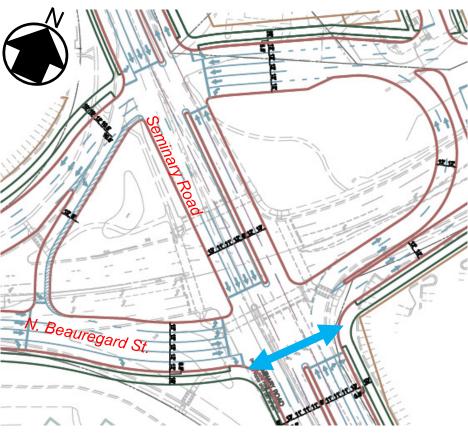




Ellipse

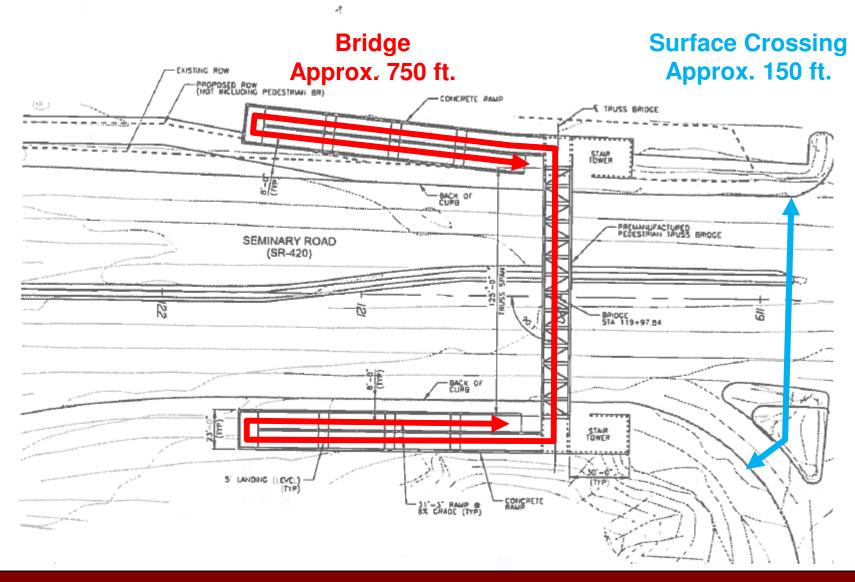


Crosses 10 lanes
Approximately 115 feet (33 seconds)



Crosses 8 lanes
Approximately 92 feet (26 seconds)

Pedestrian Bridge (Seminary/Mark Center)

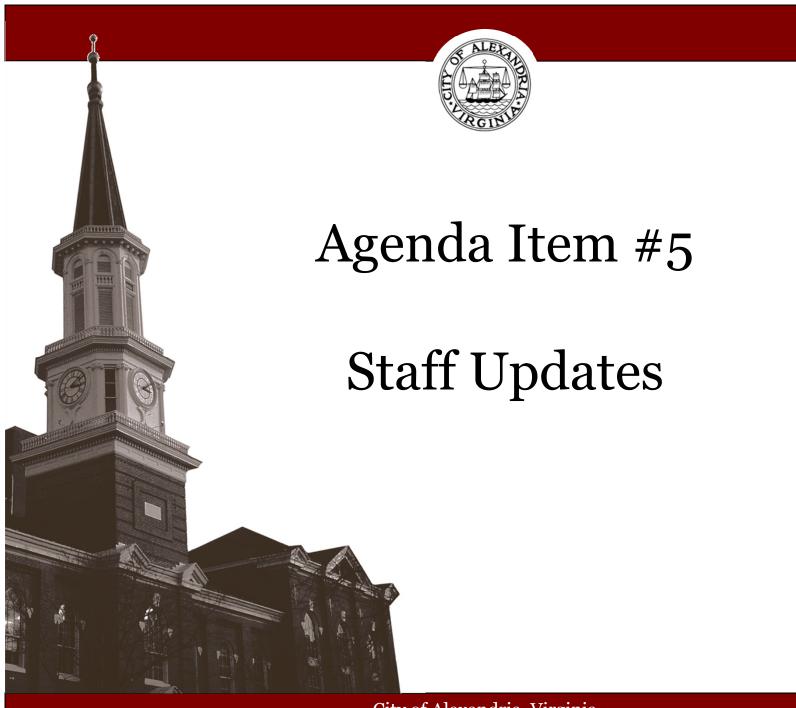


Commission Charge

The Transportation Commission is created to advocate and promote development of balanced transportation systems for the City through **oversight of the implementation of the transportation element of the City's Master Plan**.

THANK YOU

COMMENTS / QUESTIONS?



THANK YOU

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